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thermopile sensor to stabilize and maintain the UAVs altitude during its autonomous navigation. The entire structure is made of styrofoam backboned by carbon fiber tube and wooden stick to make it light weight, easy to maneuver, replaceable and cost efficient.

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Design and Development of UrbanConcept Car

Ataur Rahman

*Mechanical Engineering, Kulliyyah of Engineering
International Islamic University Malaysia*

The “UrbanConcept” vehicle is defined as a fuel economy pure electrical vehicle which will be the closer in appearance and technology to road-going vehicles, addressing current transportation. Increasing the fuel shortage and hiking the fuel price are made the political un-stability all over the world year-to-year and decade-to-decade. While, the automotive exhaust gas emission has a significant impact on environment. This is problem and big one at this moment. For decades scientists and politicians have struggled with finding solutions to these important problems. From this study it is committed to offer a most fuel-efficient vehicle and to reduce the environmental footprint of its operations and to help meet the world’s growing demand for energy in secure and sustainable ways. To design and build this vehicle is the most challenging to make the vehicle weight below than 200 kg (including 70 kg driver weight). The goal of the project is not to operate with high speed but emphasis is given on the consumption as little fuel as possible over a set distance. Theoretically, it is found that the developed vehicle that travel further using less energy will achieve 1820 km per 1 litre equivalent of fuel. Furthermore, the design and developed vehicle will not only to contribute to the fuel efficiency vehicle, but also incorporate recycled and eco-friendly materials into the vehicle. One particular feature of this vehicle is that the waste power from the braking will be recover from regenerative braking system as the vehicle will follow-up “stop & go” driving. The vehicle will be propelled from the power of hub traction motor which will powered by super capacitor.

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Emergency Medical Care Information System for Fetal Monitoring

*Muhammad Ibn Ibrahimy, M.A.M. Ali, M.B.I. Reaz, S. Tsuruoka, M.A. Hasan,
S.M.A Motakabber, W.Y.W. Yusuf*

*Electrical and Computer Engineering, Kulliyyah of Engineering
International Islamic University Malaysia*

This poster presents a research work that is concerned to implement an emergency medical care information system for fetal ECG (FECG) monitoring. The research work comprises of three major parts i.e. development of an abdominal ECG (AECG) data acquisition system, networking of transferring and receiving AECG data between patient (client) and physician (server), and improvement of existing techniques for fetal heart rate (FHR) monitoring. The main function of AECG data acquisition system is to acquire the mother’s ECG data using a commercial chip called CARDIC and store it in a local terminal. On the other hand, the networking application serves the purpose of transferring the AECG data to the remote terminal via the established connection for remote monitoring and diagnosis purpose. Eventually, the AECG signals are processed in the remote terminal to extract the FECG from the AECG signal for efficient FHR monitoring. The networking system is a client/server application known respectively as Local Patient Monitoring System (LPMS) and Remote Patient Monitoring System (RPMS). It supports transferring of AECG data file and online chatting session. The diagnoses of the reading will be done by the specialists and action can immediately be taken in emergency cases.